

WHAT IS CLAIMED IS

1. A synchronizing mechanism for office chairs, comprising
 - a base carrier (1) to be placed on a chair column,
 - a backrest carrier (3), which is articulated to the base carrier (1) such that it is pivotable about a transverse axis (5),
 - a seat carrier (4), which is pivotable about a transverse axis (11) in a region of its front end via a turning-and-sliding joint (17) and slideable in a longitudinal direction (SL) of the seat together with the base carrier (1), and coupled with the backrest carrier (3) such that it pivots in a region of its back end about a transverse axis (22), as well as
 - a spring arrangement (23) to actuate the synchronizing mechanism to counter its synchronized adjusting motion of the seat carrier (4) and backrest carrier (3),
 - wherein the spring arrangement (23) incorporates at least one helical compression spring (24) disposed essentially parallel to a sliding direction of the seat carrier (4), flat underneath the same,
 - wherein for each helical compression spring (24) a counter-bearing extension arm (25) is provided, a front end of which is articulated to the base carrier (1) and a rear-facing end of which, freely projecting, forms a counter bearing (27) for a rear support of the helical compression spring (24), and
 - wherein the at least one helical compression spring (24) is supported in each case with its front end on a counter bearing (28) formed on the seat carrier (4).
- 25 2. A synchronizing mechanism according to claim 1, wherein to adjust a pretension of the at least one helical compression spring (24), the associ-

ated counter-bearing extension arm (25) is supported slideable in the longitudinal direction (SL) on the base carrier (1).

3. A synchronizing mechanism according to claim 2, wherein the counter-bearing extension arm (25) is slideably supported on the seat carrier (4) by
5 means of a bearing head (26) on an adjusting shaft (11) forming a transverse axis of the turning-and-sliding joint (17), said adjusting shaft (11) carrying in each case one eccentric cam (35) for adjusting the associated counter-bearing extension arm (25).

4. A synchronizing mechanism according to claim 3, wherein a spring
10 package of multiple helical compression springs (24) is provided, a combined pretension of which is variable in narrow steps by means of a varying gradation of the individual eccentric cams (35) of the adjusting shaft (11).

5. A synchronizing mechanism according to claim 1, wherein the counter-bearing extension arms (25) are designed as rods on which the helical
15 compression springs (24) are placed.

6. A synchronizing mechanism according to claim 1, wherein the at least one helical compression spring (24) as a counter bearing for the seat carrier (4) is supported via a bearing strip (28) extending perpendicular to the longitudinal direction (SL), which is pivotably slide-mounted in a bearing-
20 cutout.

7. A synchronizing mechanism according to claim 3, wherein the bearing head (26) of the given counter-bearing extension arms (25) is designed as a frame, frame walls (33) of which that extend parallel to the longitudinal direction (SL) have an elongated-hole type bearing cutout (34), by means
25 of which the counter-bearing extension arm (25) is slideably supported on the adjusting shaft (11).

8. A synchronizing mechanism according to claim 7, wherein the front frame wall (37) of the given bearing head frame (26) is actuated by the associated eccentric cam (35).
9. A synchronizing mechanism according to claim 1, wherein at least one counter-bearing extension arm (25) is provided at its rear-facing end with a supplemental counter bearing (38) that is adjustable in the longitudinal direction (SL).
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10. A synchronizing mechanism according to claim 9, wherein the adjustable supplemental counter bearing is formed by a slider (39) that is slideably guided on the counter-bearing extension arm (25), said slider (39) being actuatable by an eccentric cam shaft (41).
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11. A synchronizing mechanism according to claim 10, wherein the eccentric cam shaft (41) is mounted on a bearing brace (43) that extends backward from the front end of the counter-bearing extension arm (25).
- 15 12. A synchronizing mechanism according to claim 1, wherein the at least one counter-bearing extension arm (25) is executed as an adjusting shaft (51) that is rotation-driveable by an actuator (50) on the base carrier (1), said adjusting shaft (51) supporting on its rear-facing end a counter-bearing end stop (64) that can be adjusted spindle-like in the direction of the spring force of the helical compression spring (24) by a rotation of the shaft .
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13. A synchronizing mechanism according to claim 12, wherein the actuator (50) incorporates an actuating shaft (52) disposed in the front region of the base carrier (1) perpendicular to the orientation of the adjusting shaft(s) (51), said actuating shaft (52) being coupled via a deflection gear (49) to
25 the front end of the adjusting shaft(s) (51).

14. A synchronizing mechanism according to claim 13, wherein at least two adjusting shafts (51) are rotatably supported with their front end in a bearing yoke (65) disposed on a deflection gear shaft (49).
15. A synchronizing mechanism according to claim 12, wherein the deflection gear (49) incorporates a bevel gear (61) between the at least one adjusting shaft (51) and a gear shaft (57).
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